

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/011590

International filing date (day/month/year)
15.10.2004

Priority date (day/month/year)
21.10.2003

International Patent Classification (IPC) or both national classification and IPC
C09B29/01, C09B29/00, C09B29/033, C09B29/039, C09B29/08, C09B31/043

Applicant

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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/011590

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	7
	No: Claims	1-6,8-10
Inventive step (IS)	Yes: Claims	7
	No: Claims	1-6,8-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

V. Reference is made to the following documents:

D1: GB -A- 0 909 843
D2: DE -A- 2 130 992
D3: GB -A- 1 457 532
D4: FR -A- 1 531 147
D5: Derwent database WPI, AN=1981-12791D [08] & JP-A- 55 161 857
D6: GB -A- 2 104 088
D7: DE -A- 2 811 167
D8: GB -A- 1 351 381
D9: WO -A- 99/50357
D10: GB -A- 2 335 924

V.1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-6,8-10 is not new in the sense of Article 33(2) PCT resp. does not involve an inventive step in the sense of Article 33(3) PCT.

The following compounds identified in the documents D1,D2,D7 (the references in parentheses applying to these documents) fall under the general part of product claim 1:

V.1.1. D1 (examples 1, 7 [cyanomethoxycarbonylmethyl can be regarded as being substituted C1-6-alkyl],11,13,15,16,18,19,23,24,29,32,34-36,39,41,44,47,48).

V.1.2. D2 (example 3)

V.1.3. D7 (example 10) *disclaimed*

The problem underlying the current application can be seen in 'providing dyes for colouring polyester fibers with very good wet fastness properties'.

Reading D1, the dyes disclosed therein also provide certain wet fastness properties, when fixed on polyester materials [please read D1, page 3, col. 1, lines 20-25]:

"The new water-insoluble azo dyestuffs have excellent affinity for textile materials comprising artificial fibres which they dye in orange to blue shades possessing **very good fastness to light, washing and to dry heat treatments....**"; 'washing fastness' is strongly related to wet fastness.

The dyes of D1 solve therefore the same technical problem as the claimed dyes.

The dyes disclosed in D1, which fall under the general definition of current claim 1 and not

under the two provisos, are considered being novelty destroying, those dyes of D1 falling under the provisos of current claim 1 are pertinent against inventive step.

D1 is therefore novelty destroying resp. pertinent against inventive step for claims 1-6,8-10 (the technical features defined in the dependent claims 2-6,8 present merely several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed (please read also D4-D10 (relevant passages indicated in the International Search Report)).

On page 8, lines 5-8 of D2, the wetfastness of the dyes disclosed therein is also described: ".....besitzen eine **vorzügliche Echtheit gegenüber Licht, nassen Behandlungen** und.....". The dye of example 3 is novelty destroying for current claims 1,6,8-10. D2 as a whole is also pertinent against inventive step for claims 2-5.

D7 (see esp. example 10) is pertinent against inventive step of claims 1,5,8-10, because it deals also with wet-fast colorations: ".....Das Färben und Bedrucken von Mischmaterialien aus Cellulose und Polyesterfasern bringt aufgrund der unterschiedlichen Affinität für die Farbstoffe eine Reihe von Problemen mit sich..... Das Arbeiten mit Mischfarbstoffsystemen ist teuer, da der jeweils nicht anfärbende Farbstoffanteil **ausgewaschen** werden muss, was eine **Abwasseraufarbeitung** erfordert. Da auf Polyester material in erster Linie Dispersionsfarbstoffe appliziert werden können, konzentrieren sich die Anstrengungen darauf, diese Farbstoffklasse auch auf Cellulosefasern mit befriedigenden Echtheiten zu fixieren....." [D7, page 3, 1st par.].

V.2. The subject matter of claim 7 seems not to be obvious from the disclosed prior art.

VII. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D7-D10 is not mentioned in the description, nor are these documents identified therein.

VIII. The group -NCOR6 as a possibility for R1 seems to be not complete. A further free valency is present at the nitrogen atom (obviously -NHCOR6 is meant, see also formula (Ie) on page 5 as well as example 139 on page 21).